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Sticking Together or Falling Apart: In-Group Identification as a Psychological Determinant of Group Commitment Versus Individual Mobility

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Two experiments investigated how in-group identification, manipulated with a bogus pipeline technique affects group members' desire for individual mobility to another group. In the first experiment ($N = 88$), the in-group had low status, and group boundaries were either permeable or impermeable. Low identifiers perceived the group as less homogeneous, were less committed to their group, and more strongly desired individual mobility to a higher status group than did high identifiers. The structural possibility of mobility afforded by permeable group boundaries had no comparable effect. The second experiment ($N = 51$) investigated whether in-group identification can produce similar effects when relative group status is unknown. Even in the absence of an identity threat, low identifiers were less likely to see the groups as homogeneous, felt less committed to their group, and more strongly desired individual mobility than did high identifiers. Results are discussed with reference to social identity and self-categorization theories.

For some fans of sports teams, supporting "their" team at home and away, not only rejoicing with them after success but also sticking with them through failure and defeat, are integral features of group life. Indeed, even though there are no formal restrictions that prevent supporters from turning their backs on "their" team, or even from switching loyalties to another, more successful team, such a course of action would be unthinkable for the *true* fan (see e.g., Wann & Branscombe, 1990). Thus, whether fans stick with their team or not is determined not so much by the question of whether alternatives for their adulation are objectively available; rather, this is a matter of psychological commitment stemming from the importance of that particular team to the supporter's identity. In the present research we examined the role such psychological factors play in people's inclination to stand by their group or to leave. More specifically, we investigated how in-group identification is related to the pursuit of individual mobility versus group loyalty and commitment.

The role of in-group identification in social perception and behavior is elaborated on by social identity theory (e.g., Tajfel, 1978; Tajfel & Turner, 1979) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Social identity theory was developed to explain why, under certain circumstances, people may act in terms of group memberships (i.e., their social identity) rather than behave as distinct individuals. Departing from this general approach, social identity theory focuses on the different ways in which group members may respond to unfavorable social status, and it specifies how different beliefs about the properties of the social structure may lead people to engage in either individualist or collective coping strategies. Self-categorization theory elaborates in more detail the role of group identification, by specifying how salience of either one's personal or social identity may guide various social perceptions and behaviors. An interesting theoretical tension arises when we try to predict the responses of members of lower status groups from these two perspectives. Specifically, self-categorization theory predicts that people are more inclined to behave in terms of their group membership because their common identity as group members is more salient. Social identity theory, however, suggests that people generally tend to avoid the association with a group that does not contribute to a favorable social identity (i.e., a lower status group), especially where sociostructural conditions allow this (i.e., when group boundaries are permeable). An important question, then, is under what circumstances members of lower status groups will feel committed to their common identity and stick together instead of opting for membership in a more attractive social group.

In previous research (Doosje, Ellemers, & Spears, 1995; Spears, Doosje, & Ellemers, in press) we have demonstrated that responses to group identity threat differed depending on the person's prior level of in-group identification. In these earlier studies, we measured perceptions of intragroup homogeneity and heterogeneity in response to differences in group status (Doosje, Ellemers, & Spears, 1995) and self-stereotyping as a consequence of threats to either group status or group distinctiveness (Spears et al., in press). Results from these studies revealed that, compared to high identifiers, low identifiers were more likely to accentuate intragroup heterogeneity and were less

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inclined to self-stereotype as a group member, when their group's identity was threatened. We explained these findings by arguing that low identifiers are more disposed to individual-level responses, dissociating themselves from the in-group, whereas high identifiers are more likely to display a group-level reaction, "sticking together" when their group is threatened (see also Lee & Ottati, 1995; Simon, 1992). So far, however, our analysis in terms of individual- versus group-level responses has remained somewhat speculative, because these earlier studies did not include a *direct* measure of group members' inclination to leave the threatened group. The aim of the present investigation was to address this issue more explicitly and to assess how strength of in-group identification affects group members' desire for individual social mobility, when social identity is threatened (Experiment 1), or even when it is not (Experiment 2). The role of group identification as a determining factor has been neglected by earlier experimental research in this area, presumably because it has been methodologically more convenient to regard it as an outcome or a correlate of behavioral responses rather than as a cause of them. Furthermore, measuring group identification as a predictor does not rule out the influence of additional causal factors correlated with this variable. In the present studies, we used a bogus pipeline procedure developed specially to manipulate identification in order to surmount these problems (cf. Doosje, Ellemers, & Spears, 1995). This technique allowed us to experimentally induce different levels of identification in group members and to study the ensuing responses to the intergroup situation.

Experiment 1

Theoretical analyses of the desire for mobility to another group as an individual strategy to cope with low group status have mainly focused on people's beliefs about the properties of the social structure as determinants of strategy preference (Tajfel, 1978; Tajfel & Turner, 1979). Empirical research in which different kinds of social structures were experimentally manipulated has confirmed the important role of these sociostructural variables that determine the feasibility of different behavioral options (for an overview, see Ellemers, 1993). Different studies that have compared people's responses when group memberships were either flexible (permeable group boundaries) or fixed (impermeable group boundaries) have yielded consistent results (Ellemers, van Knippenberg, de Vries, & Wilke, 1988; Ellemers, van Knippenberg, & Wilke, 1990). These studies indicate that, when group boundaries are permeable, members of low-status groups generally respond with decreased satisfaction with group membership and decreased in-group identification. In other words, when presented with the opportunity to gain membership in another group, because group boundaries are permeable, people seem to opt for an individual mobility strategy in response to their group's low status rather than dealing collectively with the group threat (cf. Lalonde & Silverman, 1994; Taylor & McKirnan, 1984; Wright, Taylor, & Moghaddam, 1990).

At first sight these results seem to be symptomatic of a rather opportunistic stance toward group membership. Insofar as the group may contribute to positive social identity (as is the case with a high-status group), people show strong in-group identification and express satisfaction with their membership in this group. When, on the other hand, the in-group does not compare positively to other groups, people seem quite prepared to take advantage of the fact that group boundaries are permeable and to leave their own group to gain membership in a group with higher status. Social identity and self-categorization theorists have consistently argued, however, that the group is more than just a vehicle for serving personal advancement and egoistic self-presentational goals (Tajfel, 1978; Tajfel & Turner, 1979; Turner, 1975, 1991). From this theoretical point of view, we therefore predicted that this individualistic response pattern may not be as general as it may seem, and indeed, that the degree to which people identify as members of their group can play a crucial role in determining whether they are inclined to show an individual-level or group-level response to group threat (cf. Doosje, Ellemers, & Spears, 1995; Spears et al., in press).

When we take a closer look at the studies in which people expressed the desire to leave their lower status group when presented with an opportunity for individual mobility (Ellemers et al., 1988, 1990; Lalonde & Silverman, 1994; Wright et al., 1990), it turns out that these studies were all conducted with laboratory groups, to which people were assigned on a random basis. However, in some further experiments, in which group membership allegedly was based either on some common trait (Ellemers, Doosje, van Knippenberg, & Wilke, 1992), or was reinforced because group members suffered common unfair treatment (Ellemers, Wilke, & van Knippenberg, 1993), attempts to achieve upward individual mobility in response to permeable group boundaries were less prominent. Furthermore, research investigating behavior in real-group settings reveals that group members may refrain altogether from displaying strategic behavior serving their own personal self-interest when their common identity as in-group members is sufficiently important (see de Gilder, 1993; Mlicki & Ellemers, 1996). These results are consistent with our hypothesis that, when presented with objective opportunities for individual mobility, the importance of the group to a person's identity affects that person's psychological readiness to display individualistic behavior and determines whether or not he or she will take advantage of these opportunities to improve his or her personal standing in the social structure.

In sum, theoretical assumptions, together with our investigations of perceived intragroup homogeneity and self-stereotyping as well as previous research examining individual mobility as an identity management strategy, led us to hypothesize that the tendency to use such individualistic strategies is determined at least in part by the extent to which people feel involved with or committed to their group (cf. Turner, Hogg, Turner, & Smith, 1984). As indicated earlier, it is important to note that the studies investigating individual mobility attempts have hitherto measured in-group identification as a dependent variable that is indicative of the psychological readiness to leave one's group. However, at a theoretical level (Tajfel, 1978; Turner, 1975, 1987), strength of in-group identification can be seen as an important cause of people's inclination to engage in individualistic or intergroup behavior. Group identification should therefore be investigated as an independent variable that is likely to determine whether people opt primarily for individual mobility or for social change attempts in response to identity threats. Previous research in which effects of differential identity salience were studied has actually induced differential social contexts (e.g., Haslam, Turner, Oakes, McGarty, & Hayes, 1992),

differential intragroup similarity (Kawakami & Dion, 1993), or differential relevance of natural group memberships (Lalonde & Silverman, 1994). In contrast, as noted earlier, degree of group identification as an independent variable has been surprisingly neglected, in part because, unlike salience, this is a feature of the person as well as something that is influenced by the situation. In recent work we have therefore devised and validated a bogus pipeline procedure designed to directly manipulate, by experimental means, identification with artificially created laboratory groups to address the causally determinant role of identification, unconfounded by other variables (see Doosje, Ellemers, & Spears, 1995). This technique is theoretically important in the present context given the problems associated with using identification in natural groups as a classification variable in an analysis of variance (ANOVA; e.g., by means of a median split; Roccas & Schwartz, 1993) or as a dependent variable in a correlational analysis (e.g., Simon, Kulla, & Zobel, 1995). Precisely because identification develops and builds over a history of association with a group, it is likely to be naturally confounded with a range of other factors that could also explain commitment to the group (such as actual or perceived interdependence, familiarity, interpersonal loyalties, or even force of habit). Experimental manipulation of identification in the present study allowed us to discount these explanatory contenders.

In sum, despite evidence of a preference for individual mobility in the face of low group status, we proposed that group members who feel involved with their group are more likely to show commitment to their group, even when mobility is possible. Thus, although permeable group boundaries may make people aware of themselves as movable agents in the social structure, whether they will take advantage of the opportunity to move is likely to depend on how they experience the properties of the social structure, particularly their identity investment in the group (cf. Tajfel, 1978). Members of a low-status group may therefore respond differently to objective opportunities for individual mobility, depending on their level of in-group identification, such that low identifiers report a greater desire for individual mobility than do high identifiers.

In the present experiment we induced low group status and orthogonally manipulated permeability of group boundaries and in-group identification. In this way, we could independently assess effects of the *structural possibility* of achieving membership in a higher status group (because group boundaries are permeable) and of the *psychological readiness* to leave one's group (because of low in-group identification) on the desire for individual mobility. In other words, the joint manipulation of structural and psychological factors within the same research design enabled us to directly compare whether an individual-level response to group threat is elicited by permeable group boundaries, low in-group identification, or both. Our main prediction was that the extent to which people identify with the in-group would moderate or even override effects of group boundary permeability.

Method

Overview

At each experimental session, participants were randomly divided into two groups, allegedly on the basis of a problem-solving task that measured whether they were inductive or deductive thinkers. False feedback on a group problem-solving task was used to induce relative group status. In this experiment, the in-group always had lower status than the out-group. Furthermore, a bogus pipeline procedure was used to lead participants to believe that they were strongly or weakly involved with their group. Finally, further instructions informed group members either that the composition of the groups would remain the same throughout the experiment, or that some participants might change groups. In this way, we manipulated in-group identification (low or high) and permeability of group boundaries (permeable or impermeable) in a 2 × 2 between-subjects factorial design. The main dependent variables consisted of measures of perceived group homogeneity, commitment to the group, personal identification, and desire for individual mobility.

Participants

In the first experiment, participants were students of the University of Amsterdam ($N = 88$). They were randomly assigned to one of the experimental conditions, although men ($n = 52$) and women ($n = 36$) were assigned in equal proportions to each cell. Their mean age was 21 years (range: 16–34). Students were approached in the university canteen and asked to participate in the study on a voluntary basis. Each session lasted approximately 1.5 hr; participants received 15 Dutch guilders (approximately $10.00 U.S.) as remuneration. At the end of each session, participants were fully debriefed and were asked to not discuss the experiment with fellow students.

Procedure

On arrival at the laboratory, participants were seated in a computer room. About 10 participants were present for each session; they were partially separated from each other by screens. The experimenter explained that three electrodes would be placed on one of their hands, to measure their galvanic skin response while they performed the experimental tasks. Next the experimenter put some electrode gel on the electrodes and instructed participants how to put the three electrodes on one of their hands (see Doosje, Ellemers, & Spears, 1995, for further details about this procedure). After all participants had completed this, they were told that the computers were connected with each other in a network, that further instructions would be displayed on the computer screen, and that they could answer any questions that appeared with the keyboard or the mouse.

Categorization. Instructions on the computer screen explained that the experiment was designed to study how people collaborate on a group task. To be able to do this, participants first had to be divided into two groups: "inductive" and "deductive" thinkers, on the basis of a test that ostensibly measured their style of thinking (Doosje, Spears, & Koomen, 1995). This test consisted of a word association task and a number association task. Each item of this test presented participants with a key word (e.g., *house*) or a key number (e.g., 4), after which they had to indicate which of four alternatives they associated most strongly with the key word (e.g., *number, street, flat,* or *room*) or number (e.g., 2, 16, 40, or 44). After completion of this test, participants were led to believe that the main computer could determine their style of thinking. In reality, all participants were assigned to the group of inductive thinkers (a pilot study had not revealed evaluative differences or different expectations on the basis of the two group labels). Furthermore, they were informed that four of the other participants present were allocated to the same group; the exact size of the other group was not revealed. Further instructions told participants that, in line with previous research, the two groups most likely would be of equal size and that men and women would probably be equally represented in both groups.

Group task. Next, participants performed a group task that comprised eight items. Each item consisted of a brief description of a "personnel problem;" for example,

> A flower shop is not doing well. It seems that, due to the recession, flowers are the first thing that people economise on. It is only possible to ensure the future of the company if the costs of personnel are reduced.

Then, two possible solutions were suggested (e.g., "This can be achieved in two ways: (a) by discharging a small number of employees, or (b) by reducing the working hours of all employees"). Participants were first asked to indicate which of these solutions they would personally prefer. Then they received false feedback, ostensibly indicating the preferences of their fellow in-group members, on the basis of which each group member had to give his or her final decision. It was made clear that the group could earn more points with this decision task, the more group members made the correct final decision. Furthermore, it was emphasized that final score on the group task would be corrected for the number of group members, so that the scores of the two groups could be compared.

Manipulation of in-group identification. After completion of this group task, but before group members received feedback about their group's performance, we manipulated the level of in-group identification. Participants were first asked to indicate on a 9-point scale (1 = *not at all,* 9 = *very much*) to what extent they agreed with a number of general statements that indirectly referred to group membership or to contact with other people in general (e.g., "Relationships with other people are very important to me"). Further instructions explained that this was part of a measure tapping the extent to which participants felt involved with their group. Participants were led to believe that the computer could calculate this from several indices, namely their answers to this questionnaire, the way they had collaborated with their fellow group members during the group task, and the tension level in their bodies while they worked on the group task and the questionnaire, as measured with the electrode. We deliberately left unspecified how this was calculated exactly, or what the range of possible scores would be. We then manipulated the level of in-group identification by informing participants in the *low-identification* condition that their group involvement score (27 points) was lower than the average score for these kinds of groups (40 points), whereas the group involvement score of participants in the *high-identification* condition (53 points) lay above this average score. Participants were asked to write their involvement score on a form they had been provided, on which the average score was preprinted.

Induction of low group status. After the manipulation of in-group identification, participants received feedback about the two groups' performance on the problem-solving task. These scores always indicated that the in-group's performance was inferior to that of the out-group (54 points for the in-group, 67 points for the out-group). Here too, we reinforced the manipulation by indicating that the average score for this group task was 61 points. Hence, the in-group performance also fell below this average score. Again, participants were asked to write on the form, on which the average score was preprinted, the score their group had earned on the problem-solving task.

Manipulation of permeability. After receiving the feedback on the group task, participants were told not only that the quality of the collaboration in the group would depend on the style of thinking of the group members, but also that it is important that people can adapt to their group, and that their personal performance is compatible with the performance of their group. Participants in the *impermeable* condition were subsequently informed that the composition of the groups would nevertheless remain the same throughout the experiment and that they would perform all experimental tasks with the same group. In the *permeable* condition, however, participants were led to believe that the composition of the groups might change during the course of the experiment. Depending on how well group members had been able to adapt to their group, and how well their individual performance matched their group's performance during the first experimental task, some participants would be able to change groups for the remaining group tasks (cf. Ellemers et al., 1988, 1990, 1993). We deliberately chose to refer to various different criteria in the permeability manipulation, to avoid the possibility that participants could infer that they would be able to influence their chances of being reassigned to the other group.

Dependent measures. After the experimental manipulations were induced, the dependent measures were assessed. The first three questions were intended to check these manipulations. Participants were asked to what extent it would still be possible to change groups (1 = *certainly not,* 9 = *certainly*), what the different measures had revealed about their level of involvement with the in-group (1 = *much below average,* 9 = *much above average*), and what the relative performance of the in-group on the group task had been (1 = *much worse than the other group,* 9 = *much better than the other group*). Then the dependent measures asked about the perceived homogeneity of the two groups ("To what extent are inductive/deductive thinkers similar to each other?": 1 = *not at all,* 9 = *very much*). Furthermore, four questions asked how strongly participants actually identified with or felt committed to the group of inductive thinkers ("I identify with the inductive thinkers/I see myself as an inductive thinker/I am glad to belong to the group of inductive thinkers/I feel strong ties with other inductive thinkers:" 1 = *not at all,* 9 = *very much;* $\alpha = .85$). This scale is hereafter referred to as *group commitment,* to distinguish it from the identification *manipulation* (i.e., the independent variable). One question was asked about participants' personal identification ("I am different from other people:" 1 = *not at all,* 9 = *very much*). Then we tapped participants' pursuit of individual mobility (cf. Worchel, Coutant-Sassic, & Wong, 1993), by asking them two questions indicating with which group they would rather perform another group task, and with which group they would rather collaborate ($\alpha = .79$). These two questions were answered on 9-point bipolar scales, with lower scores indicating greater preference for the group of deductive thinkers (the in-group) and higher scores indicating greater preference for the group of deductive thinkers (the out-group), the latter denoting stronger preference for individual mobility.

Results

Checks on the Manipulations

We omitted the data from 2 participants from the analyses because they misunderstood the manipulations. One of them indicated that (s)he thought the in-group had performed better than the out-group (whereas all participants were informed that their group had performed worse than the other group), and the other one failed to respond correctly on the check on the identification manipulation. Results from the remaining 86 participants show that they correctly indicated that their group had performed worse than the other group ($M = 2.29$, which significantly deviates from the scale midpoint, 5), $F(1, 82) = 821.58$, $p < .001$. Furthermore, participants in the impermeable condition considered it less likely ($M = 2.00$) than participants in the permeable condition ($M = 7.47$) that some people might change groups, $F(1, 82) = 127.95$, $p < .001$. Finally, participants in the low-in-group-identification condition reported less involvement with the group of inductive thinkers ($M = 2.09$) than those in the high-identification condition ($M = 7.49$), $F(1, 82) = 965.50$, $p < .001$.

Principal-Components Analysis

To check the discriminant construct validity of our main dependent variables (i.e., commitment, group homogeneity, and individual mobility), we conducted a principal-components analysis. This analysis resulted in a three-factor solution, which

explains 80% of the variance in the individual items. It is important to note that the four commitment items load highly only on the first factor, and the two homogeneity items have high loadings only on the second factor, whereas the two individual mobility items have high loadings only on the third factor. This analysis demonstrates that the questions intended to measure perceived homogeneity, group commitment, and individual mobility indeed refer to different conceptual constructs. The specific factor loadings are presented in the Appendix.

Group Homogeneity

We investigated the two questions that asked about the perceived homogeneity of the groups of inductive and deductive thinkers (with higher means indicating greater perceived homogeneity), with a 2 × 2 × 2 mixed design ANOVA in which in-group identification (low–high) and permeability of group boundaries (impermeable–permeable) were between-subjects factors, and target group (in-group–out-group) was a within-subjects factor. This revealed a target group main effect, $F(1, 82) = 7.83$, $p < .01$, with means at first sight revealing the well-known *out-group homogeneity effect* (cf. Park, Judd, & Ryan, 1991; Park & Rothbart, 1982). This main effect was further qualified by the interaction between target group and in-group identification, $F(1, 82) = 3.82$, $p < .05$. The relevant means and analysis of simple main effects reveal that only when in-group identification is low is the out-group seen as more homogeneous ($M = 4.88$) than the in-group ($M = 4.21$), $F(1, 82) = 11.64$, $p < .001$. High identifiers, however, consider the in-group just as homogeneous ($M = 5.12$) as the out-group ($M = 5.23$), $F(1, 82) < 1$, *ns*. To put it differently, the in-group is seen as less homogeneous in the low-identification condition ($M = 4.21$) than in the high-identification condition ($M = 5.12$), $F(1, 82) = 6.47$, $p < .02$.

Group Commitment

A 2 (in-group identification) × 2 (permeability) ANOVA on the mean group commitment score resulted in a significant main effect only of in-group identification, $F(1, 82) = 4.77$, $p < .04$, indicating stronger commitment to the group among high identifiers ($M = 5.12$) than among low identifiers ($M = 4.45$).

Personal Identification

We submitted the personal identification question to a two-way ANOVA. This resulted in a significant main effect only of permeability, $F(1, 82) = 4.40$, $p < .04$. The relevant means indicate more personal identification in the permeable condition ($M = 7.38$) than when group boundaries were impermeable ($M = 6.88$). This confirmed our general expectation that permeable group boundaries may make people more aware of the fact that people may function as individual agents in the social context.

Individual Mobility

We subjected the mean individual-mobility score to a two-way ANOVA. This revealed a significant main effect only of in-group identification, $F(1, 82) = 2.64$, $p < .05$, one-tailed, indicating, as expected, a stronger preference for individual mobility to the other group under low ($M = 5.45$) than high ($M = 4.80$) in-group identification.

Mediational Analysis

Although the above findings indicate that in-group identification affects group commitment as well as individual mobility, our theoretical argument is that an internalized feeling of group commitment mediates the effect of the externally manipulated identification on people's desire for individual mobility. Therefore, we included group commitment as a covariate in the ANOVA, to check whether the effect of in-group identification on individual mobility is mediated by group commitment (cf. Judd & McClelland, 1989). In this analysis, group commitment emerged as a significant covariate ($\beta = .37$), $F(1, 81) = 13.10$, $p < .001$. It is important to note that inclusion of group commitment in the analysis eliminates the direct effect of in-group identification on individual mobility, from $F(1, 82) = 2.64$, $p < .05$, to $F(1, 81) < 1$, *ns*. In sum, these analyses are consistent with the notion that the manipulated level of in-group identification affects the actual subjective sense of group commitment, which in turn determines people's inclination of whether or not to pursue individual mobility.

Discussion

This experiment demonstrated that in-group identification is a critical determinant of people's responses to their group's low-status position, but we found less clear effects of the permeability of group boundaries. Although the results of the question that checked the manipulation of permeability, as well as the measure of personal identification, indicate that we successfully induced a differential sense of opportunity to change groups—which resulted in a stronger tendency to identify as a unique individual—it nevertheless seems that this was not the primary force that guided group members' desire for individual mobility. Instead, we replicated our previous findings that high identifiers consider the in-group to be more homogeneous (cf. Doosje, Ellemers, & Spears, 1995). Furthermore, the results from the present investigation extend these earlier findings and support our theoretical argument about the implications of this psychological "drawing together" of the in-group. Our manipulation of in-group identification not only led participants to perceive the in-group as more homogeneous (cf. Doosje, Ellemers, & Spears, 1995), but it also made them actually feel more committed to the in-group, and it made them show less desire for individual mobility to the higher status group. Additional mediational analyses are consistent with the hypothesized relation between (manipulated) in-group identification, (measured) group commitment, and the pursuit of individual mobility, corroborating the argument that reported group commitment, as the internalized result of the identification manipulation, mediated the effect of this independent variable on individual mobility.

The question then arises as to why there were no significant main effects or interactions involving the permeability manipulation in this study. Although our manipulation differs from the experimental paradigm used in some of the previous studies investigating group boundary permeability (e.g., Lalonde & Silverman, 1994; Wright et al., 1990), it seems difficult to attribute the lack of effects in the present investigation to the failure of

the permeability manipulation, because the checks were clearly and strongly significant. The theoretical relevance of our findings is further underlined by the fact that other laboratory studies, in which group boundary permeability was manipulated in the same way as in the present experiment, consistently revealed effects of such a manipulation (Ellemers et al., 1988, 1990). We argue that the most likely answer lies in the relative strength of the more psychological determinant of responses central to this study, namely group identification. Although this was a laboratory study with experimental groups, the fact that we were successfully able to manipulate group identification arguably brings our study more into line with more natural and long-standing intergroup settings where identification is likely to play an important role in determining behavior in relation to the group. It is possible that the strength of this manipulation may have overshadowed that of permeability, which could account for the difference between the present and previous experimental studies in which identification was only measured and not manipulated. Although it is always difficult to claim that one factor had a stronger effect than another in orthogonal designs, the presence of strong effects for identification, and the absence of effects for permeability, together with the significant manipulation checks and mediational analyses, lends credence to this claim of the greater strength of psychological than structural variables in this case (although it is important to add that in some cases mobility attempts may also be determined by objective opportunity). It seems quite likely that the relative importance of identification in determining commitment and mobility may also overshadow the possibilities posed by permeability in real-life groups in which identification is even more well established.

The fact that all participants belonged to a group with low status may, however, have influenced our present findings. We had predicted that for members of a lower status group, permeable group boundaries would offer the attractive alternative of membership in a higher status group, which would elicit the desire for individual mobility. Instead, regardless of whether this was a realistic possibility, low identifiers were dissatisfied with their membership in the lower status group, and they expressed a relatively strong desire for individual mobility. In fact, further inspection of the cell means reveals that in the low-identification condition the desire to leave the group occurred even when group boundaries were impermeable, which is probably due to the low-status position of the in-group. In other words, the knowledge that the other group was superior may have rendered the idea of individual mobility so attractive that less committed group members expressed a relatively strong desire to leave the in-group whether it was possible or not.

We should also consider the generality of the results in the high-identification condition. The results seem to indicate that the sense of group commitment that was evoked in this condition was sufficiently strong to keep participants from pursuing individual upward mobility, even when permeable group boundaries explicitly presented this opportunity. Although we have argued that this points to the relative strength of the psychological commitment rather than the structural feasibility of individual mobility, this result may be partly caused by the nature of our experimental procedure. More specifically, the induction of high in-group identification may have been further enhanced by the fact that each group member knew that he or she was at least partially responsible for the inferior status position of the group. More generally, previous research has shown that committed group members often close ranks and show greater group loyalty when their identity is threatened by comparison with a higher status out-group (Doosje, Ellemers, & Spears, 1995; Spears et al., in press; Turner et al., 1984; Wann & Branscombe, 1990), which also suggests that the effect for high identifiers obtained here may be restricted to lower status groups.

In sum, low status could have the effect of accentuating the more individualistic versus the more group-oriented responses of the low and the high identifiers respectively, or, more strongly, it may even be a necessary condition for this difference to manifest itself. The question then remains as to whether the differential effects of identification found in this study would hold if the groups involved are not threatened by low status. To the extent that the degree of in-group identification determines the *psychological* readiness to pursue individual mobility to another group, low identification should make people relatively more willing to change groups, even when their present group is not particularly unattractive and individual mobility does not result in higher status. In a similar vein, it is important to find out whether strong in-group identification alone is sufficient to prevent group members from pursuing individual mobility, independent of group status. If our hypothesis is generally valid, then we should find high identifiers less inclined to engage in individual mobility attempts, even when they are not united by a sense of common threat or collective responsibility for low status. We therefore designed Experiment 2 to examine the effect of identification on group commitment and individual mobility, unconfounded with low status. This is important because earlier research has revealed effects of in-group identification only under conditions of group threat, such as low group status position (e.g., Branscombe & Wann, 1994; Doosje, Ellemers, & Spears, 1995). It is therefore important to see whether group identification can have a causally mediating impact on feelings of group commitment and individual mobility, rather than merely acting as a moderator of the influence of identity threat.

Experiment 2

We conducted this experiment to further investigate effects of the in-group identification manipulation on perceived intragroup homogeneity, group commitment, and the desire for individual mobility. Furthermore, to determine the minimal conditions for in-group identification effects to emerge, we varied the salience of the categorization by either having participants work on an intergroup reward allocation task before asking questions about the groups (cf. Leyens, Yzerbyt, & Schadron, 1994), or by administering the dependent measures before participants had to work on this task. To the extent that the degree of in-group identification indeed determines people's responses to their group membership, we also expected to replicate the results obtained in the first experiment if the relative status of the groups is equal or unstated. We also examined whether these effects can occur even under conditions of low category salience, that is, before participants have had the chance to work on the intergroup reward allocation task designed to reinforce this group membership salience.

Method

Overview

Participants in this experiment were ostensibly divided into groups of inductive and deductive thinkers, on the basis of a problem-solving task. As in the first experiment, a bogus pipeline procedure was used to lead participants to believe that they identified strongly or weakly with their group. Finally, we manipulated the salience of the categorization by either having participants perform an intergroup reward allocation task before the dependent measures were taken or by administering the dependent measures before collaboration on an intergroup reward allocation task (cf. Leyens et al., 1994, p. 68). Thus, the design of this study was a 2 × 2 factorial in which in-group identification (low or high) and category salience (low or high) were manipulated orthogonally. The dependent variables were perceived group homogeneity, commitment, and desire for individual mobility.

Participants

Fifty-one college or university students in Amsterdam (23 men and 28 women) participated. Men and women were assigned in equal proportions to the experimental conditions. Their mean age was 20 years (range: 18–25). Students were approached during lunch breaks in the canteen and were asked to participate in the study on a voluntary basis. Each session of the experiment lasted approximately 1.5 hr; participants received 15 Dutch guilders (approximately $10.00 U.S.) as remuneration. At the end of each session, participants were fully debriefed and were asked to not discuss the experiment with others.

Procedure

The general introduction of the experiment, the procedure used to categorize participants into groups of inductive and deductive thinkers, and the manipulation of in-group identification after working together with other in-group members on a group decision task were identical to the procedure of the first experiment, only this time participants did not receive feedback about the relative performance of the two groups on the decision task.

Manipulation of category salience. After the manipulation of in-group identification, participants either had to perform a group task, in which they were required to allocate points to an unknown member of each group (not themselves) by means of "Tajfel matrices" (cf. Tajfel, Billig, Bundy, & Flament, 1971), or were asked to complete the dependent measures before performing this intergroup reward allocation task. We used this variation of the order in which different parts of the experiment were presented to participants to manipulate category salience (Leyens et al., 1994). In the low-salience condition, the dependent measures were taken before the intergroup reward allocation task, whereas in the high-salience condition, the categorization had been reinforced by this task before group members were asked any questions.

Dependent measures. The question intended to check the manipulation of in-group identification was the same as in Experiment 1 ("What did the different measures reveal about your level of involvement with the ingroup?": 1 = *much below average*, 9 = *much above average*). To check the intergroup category of salience manipulation, we examined whether participants responded as group members on this task, by inspecting whether they allocated more points to the in-group than to the out-group. In this experiment, the perceived homogeneity of the two groups was measured in a different way than in Experiment 1. Participants were presented with five dimensions (proficiency in problem solving, intelligence, friendliness, all-around development, and pleasantness) on which the groups had to be rated on unmarked line scales, ranging from 0 to 100. They were asked to estimate, for all five dimensions, the position of the highest and lowest scoring member of each group. We used the mean difference between the most extreme group members, indicating the range of group scores (in-group α = .83, out-group α = .83), as a more sophisticated measure than the question we used in Experiment 1, which directly asked about perceived group homogeneity (cf. Doosje, Ellemers, & Spears, 1995; Park & Judd, 1990). We used the same questions that we used in the first experiment to measure group commitment (α = .69) and individual mobility (α = .61).

Results

Manipulation Checks

In-group identification was again successfully manipulated. Thus, whereas participants in the low-in-group-identification condition reported a relatively low level of in-group involvement (M = 3.04), participants in the high-identification condition reported higher in-group involvement (M = 6.76), $F(1, 47)$ = 178.57, $p < .001$. We then checked whether the group outcome allocation task increased the salience of the categorization, by investigating whether participants indeed responded in terms of their identity as group members. For this purpose, we calculated the total number of points allocated to each group and subjected these to a 2 × 2 × 2 ANOVA with in-group identification (low–high) and category salience (low–high) as between-subjects factors and target group (in-group–out-group) as a within-subjects factor. This revealed the predicted main effect of target group, $F(1, 47) = 8.09, p < .007$. Overall, participants allocated more points to inductive thinkers (in-group: M = 15.53) than to deductive thinkers (out-group: M = 14.54), indicating that they responded in terms of the categorization that had been made. None of the other main effects or interactions were significant,[1] indicating that participants' behavior on the outcome allocation task was the same in all experimental conditions.

Principal-Components Analysis

As in Study 1, we conducted a principal-components analysis on the different measures, to check whether the three dependent variables (i.e., commitment, group homogeneity, and individual mobility) are indeed conceptually distinct. This analysis resulted in a three-factor solution similar to the one we obtained in Experiment 1, which accounted for 71% of the variance in the individual items. Thus, replicating the results from this analysis in Study 1, the four commitment items load highly only on the first factor, the two homogeneity items have high loadings only on the second factor, and the two individual mobility items have high loadings only on the third factor. The specific factor loadings are presented in the Appendix.

[1] At first it is perhaps surprising that there was no greater in-group bias for high identifiers than for low identifiers. However, empirical evidence for a positive correlation between identification and in-group bias is mixed (Hinkle & Brown, 1990), and we have argued that this may at least in part be because intergroup discrimination is not always consistent with the in-group norm or "self-stereotype" (Spears, Doosje & Ellemers, in press). If the in-group norm is better represented by "fairness," increased identification may even undermine in-group bias (cf. Jetten, Spears, & Manstead, 1996, 1997). For these empirical and theoretical reasons, we made no explicit prediction concerning the relation between identification and in-group bias.

Group Homogeneity

We analyzed the combined score ranges (i.e., averaged across the five comparative dimensions) for both groups with a 2 × 2 × 2 mixed design ANOVA in which in-group identification (low–high) and category salience (low–high) were between-subjects factors, and target group (in-group–out-group) was a within-subjects factor. This resulted in a main effect of in-group identification, $F(1, 47) = 8.81$, $p < .005$, and an interaction between in-group identification and category salience, $F(1, 47) = 4.15$, $p < .05$. As predicted, high identifiers reported a narrower score range for the in-group ($M = 49.78$) as well as the out-group ($M = 48.36$) than did low identifiers (in-group $M = 65.39$, out-group $M = 65.72$). Further inspection of the means and simple main effects relevant to the interaction reveals that the in-group identification effect is significant only under conditions of high category salience, $F(1, 47) = 12.58$, $p < .001$, but not under low category salience, $F(1, 47) < 1$, *ns* (see Figure 1).

Group Commitment

A two-way ANOVA on the combined group commitment measure revealed a significant main effect of in-group identification, $F(1, 47) = 3.93$, $p < .053$, pointing to a tendency for stronger commitment to the group among high identifiers ($M = 5.66$) than among low identifiers ($M = 5.07$).

Individual Mobility

The 2 × 2 ANOVA on the mean individual mobility score resulted only in a significant two-way interaction, $F(1, 47) = 5.22$, $p < .03$. Inspection of the relevant means, and further analysis of simple main effects, revealed that in-group identification did not affect the desire for individual mobility under low category salience (low-identification $M = 4.24$, high-identification $M = 5.12$), $F(1, 47) = 1.61$, *ns*. However, in the high-category-salience condition, we obtained the predicted effect that the desire for individual mobility was less in the high-identification condition ($M = 4.00$) than when in-group identification was low ($M = 5.32$), $F(1, 47) = 3.88$, $p < .055$, two-tailed.

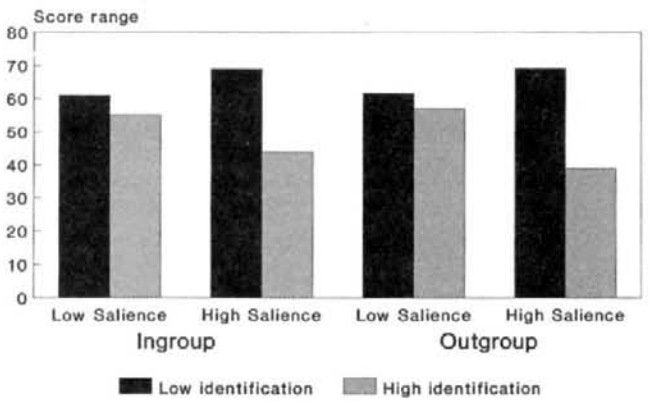

Figure 1. The effect of category salience and in-group identification on in-group and out-group score ranges (means of five dimensions).

Mediational Analysis

As in Experiment 1, we examined whether an internalized feeling of group commitment mediates the effect of the externally manipulated identification on people's desire for individual mobility, by conducting an analysis of covariance. Although this resulted in a modest effect only of group commitment ($\beta = .19$), $F(1, 46) = 1.73$, $p < .20$, inclusion of this covariate decreased the size of the interaction effect of in-group identification and category salience, from $F(1, 47) = 5.22$, $p < .03$, to $F(1, 46) = 4.63$, $p < .04$. It is important to note that the significant difference between high and low identifiers in the high-salience condition, $F(1, 47) = 3.88$, $p < .055$, was eliminated by the inclusion of group commitment as a covariate, $F(1, 46) = 2.47$, *ns*. Thus, as in Experiment 1, this analysis provides evidence of at least partial mediation, supporting the argument that the in-group identification manipulation results in an internalized sense of group commitment, which in turn determines people's inclination to pursue individual mobility.

Discussion

The results of this experiment replicate and extend the findings of Experiment 1. Even in the absence of a threat to the group's identity, that is, when people have no information about the relative status of the in-group, their responses are quite consistently affected by the induced level of in-group identification. The range measure revealed greater perceived group homogeneity under high in-group identification, although this effect was stronger when the salience of the categorization was enhanced. The results of the group commitment measure revealed a main effect of in-group identification, indicating more commitment to the group for high identifiers, regardless of category salience. Finally, low identifiers displayed a stronger desire for individual mobility than high identifiers only when the categorization was made salient.

Thus, it seems that even quite minimal conditions may be sufficient to elicit a sense of group belongingness and that our manipulation of in-group identification successfully induced different perceptions of intragroup homogeneity, different levels of group commitment, and a differential desire for social mobility, provided that the categorization was sufficiently salient. As expected, the intergroup reward allocation task served to enhance these effects, but it is important to note that, apart from the individual-mobility measure, the other dependent variables provide evidence of the predicted main effects of in-group identification.

Finally, our mediational analysis provided at least partial support that the manipulated differences in in-group identification resulted in differential feelings of group commitment, which in turn affected people's inclination to stick together as a group, or preference for collaborating with the other group.

General Discussion

To summarize, the results of both experiments underline the importance of in-group identification as a determinant of group commitment and subsequent individual-level (instead of group-level) responses. Moreover, the results of the first experiment highlight the importance of these psychological factors (cf. self-

categorization theory), in contrast to objective structural features of the intergroup situation (cf. social identity theory), in affecting people's readiness to abandon their group in search for a more positive social identity. The results of the second experiment indicate that, when the costs and benefits of changing groups are uncertain (because the group's relative standing is unclear), the level of identification also determines participants' tendency to act as individuals rather than as group members. Thus, by demonstrating these effects of manipulated differences in in-group identification, these two experiments offer convincing support for the theoretical notion (Turner et al., 1987) that the inclination to define oneself as a separate individual or as a member of a social group is a major determinant of social perceptions and behavioral intentions. Accordingly, in both experiments the reluctance to leave one's group was accompanied not only with greater group commitment but also with perceptions of group homogeneity, which we have argued are an important psychological foundation for group-level behavior (Doosje, Ellemers, & Spears, 1995). The present study replicates and extends this earlier research by demonstrating how this kind of commitment and perception can facilitate (or undermine) such behavior, even when identity is not threatened by low status. In different ways, then, both experiments point to the power of group identification in determining individual-versus group-level responses on different measures in the intergroup context. High identifiers see the groups as homogeneous units and are prepared to stand and fight, even when it would pay them in personal terms to abandon their group, but they also maintain group loyalty under less threatening conditions in which group solidarity is not needed. Low identifiers, on the other hand, accentuate the dissimilarity of individual group members and show at best indifference to continued group membership under both threatening and also more neutral conditions. In sum, this research corroborates theoretical notions that identification should be at the top of the agenda of determinants of group behavior, whereas our experimental approach is the first in this area that we are aware of that helps to rule out alternative explanations in terms of the multifarious confounds and correlates of identification in real life. If degree of identification can make the difference between behavioral responses in the group as divergent as "fight" and "flight," reasserting its importance as an independent variable provides us with a more complete understanding of group life.

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Appendix

Factor Loadings on Factor 1 (Commitment), Factor 2 (Intragroup Homogeneity), and Factor 3 (Individual Mobility) after Varimax Rotation for Experiments 1 and 2

	Experiment 1			Experiment 2		
Item	F1	F2	F3	F1	F2	F3
Commitment 1	.80			.75		
Commitment 2	.73			.76		
Commitment 3	.87			.62		
Commitment 4	.74			.69		
Homogeneity In-Group		.87			.98	
Homogeneity Out-Group		.93			.98	
Individual Mobility 1			.88			.91
Individual Mobility 2			.87			.77

Note. Only factor loadings higher than .45 are presented. F = factor.

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